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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/751,482

Applicant(s)

CHANG, KI-SOO

Examiner

TUAN A. PHAM

Art Unit

2618

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4-8 and 11-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-8, and 11-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see Applicant's remark, filed on 11/21/2008, with respect to the rejection(s) of claim(s) 1, 4-8, and 11-15 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made over Kammer (US Patent No.: 7,356,347).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1, 8, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kammer (US Patent No.: 7,356,347) in view of Rune et al. (U.S. Patent No.: 6,901,057, hereinafter, "Rune").**

Regarding claim 1, Kammer teaches a Bluetooth wireless communication apparatus (see figure 4, Bluetooth wireless device 400) for identifying devices connectable to ad-hoc networks (see figure 2, wireless devices 210-240 connects to piconet network, col.7, ln.1-25), comprising:

a user interface enabling a user to select at least one desired device among peripheral devices (see figure 4, display 440, keypad 460 the user can select any printers display on display screen 440, col.2, ln.18-32); and

a control unit for providing (see figure 4, processor 450), through the user interface (display 410 or keypad 460), information on the peripheral devices connectable to a wireless communication device (see figure 7A, display 440 display information of printers col.2, ln.18-32), and, if said at least one desired device is selected from among the peripheral devices through the user interface, establishing a connection to only said at least one desired device (see figure 7A, col.2, ln.18-32, user only select the printer that they want to connects), and not attempting a connection to at least one undesired devices which is not selected by the user from among the peripheral devices connectable to a wireless communication device (see figure 7A, col.2, ln.18-32, it is clearly seen that the user only select the printer that they want to connect, not other printer), and wherein the control unit sends an inquiry to search for said connectable peripheral devices (see figure 1), receives inquiry responses including device information from said at least one of said peripheral devices that has received the inquiry (see figure 1), and provides information on said at least one of the peripheral devices that received the inquiry (see figure 1).

It should be noticed that Kammer fails to teach the device information is contained in unused portions of a frequency hop synchronization (FHS) packet used for an inquiry response message, and the unused portions of the FHS packet are an Undefined field and an AM ADDR field. However, Rune teaches such features (see figure 4, col.4, ln.50-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Rune into view of Kammer in

order to carry the information for transmitting the data between the master and slave in the piconet.

Regarding claims 8 and 15, Kammer teaches a wireless communication method of indicating devices connectable to ad-hoc networks for a Bluetooth-embedded wireless communication apparatus (see figure 2, wireless devices 210-240 connects to piconet network, col.7, ln.1-25) which as an input unit for enabling a user to input desired values (see figure 4, display 440 or keypad 460) and a display unit for displaying various information (see figure 4, display 440, col.2, ln.18-32), the wireless communication method comprising steps of:

providing through the display unit information on peripheral devices in a range connectable to the wireless communication apparatus (see figure 4, display 440, the user can select any printers display on display screen 440, col.2, ln.18-32); and

if a device to which the user wants to connect is selected from among the peripheral devices through the input unit, establishing a connection to only the device to which the user wants to connect (see figure 7A, display 440 display information of printers col.2, ln.18-32), and not attempting a connection to device which are not selected by the user from among the peripheral devices connectable to a wireless communication device (see figure 7A, display 440 display information of printers, user select the printer, col.2, ln.18-32), wherein the step of providing information through the display unit comprises steps of sends an inquiry to search for said connectable peripheral devices (see figure 1, col.2, ln.18-32), receives inquiry responses including device information from said at least one of said peripheral devices that has

received the inquiry (see figure 1, col.2, ln.18-32), and provides information on said at least one of the peripheral devices that received the inquiry (see figure 1, col.2, ln.18-32).

It should be noticed that Kammer fails to teach the device information is contained in unused portions of a frequency hop synchronization (FHS) packet used for an inquiry response message, and the unused portions of the FHS packet are an Undefined field and an AM ADDR field. However, Rune teaches such features (see figure 4, col.4, ln.50-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Rune into view of Kammer in order to carry the information for transmitting the data between the master and slave in the piconet.

4. Claims 4, 6-7, 11, and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kammer (US Patent No.: 7,356,347) in view of Rune et al. (U.S. Patent No.: 6,901,057, hereinafter, "Rune") as applied to claims 1 and 8 above, and further in view of Olkkonen et al. (Pub. No.: U.S. 2005/0088980, hereinafter, Olkkonen").

Regarding claims 4 and 11, Kammer and Rune, in combination, fails to teach a liquid crystal display (LCD) unit for displaying various information, and the various information on the peripheral devices being displayed on the LCD unit in a form of a character string. However, Olkkonen teaches a liquid crystal display (LCD) unit for

displaying various information, and the various information on the peripheral devices being displayed on the LCD unit in a form of a character string (see figure 1, display 212).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Olkkonen into view of Kammer and Rune in order to easily read.

Regarding claims 6 and 13, Olkkonen further teaches the control unit sends an inquiry to search for a first group of peripheral devices in a directly connectable wireless range (see figure 1, mobile 100 sends inquiry message to AD HOC network 102), receives inquiry responses including device information from at least one of the peripheral devices that has received the inquiry (mobile 100 receive the response from slave in piconet, [0099-0100]), and, if service attributes of said at least one of the peripheral devices is collected from the received device information and said at least one of the peripheral devices has one of a group ad-hoc network ability and scatternet ability (piconet)([0029-0045]), searches for said at least one of the peripheral devices connectable to corresponding devices and further displays the connectable corresponding devices as information on said at least one of the peripheral devices (see figure 1, display 212, [0114-0140]).

Regarding claims 7 and 14, Olkkonen further teaches if the received service attributes one of support a group ad-hoc network service and indicate the scatternet ability, the control requests the corresponding devices to discover more peripheral

devices (see figure 1A, AD HOC network and piconet network such as Bluetooth, [0114-0140]).

5. **Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kammer (US Patent No.: 7,356,347) in view of Rune et al. (U.S. Patent No.: 6,901,057, hereinafter, "Rune") as applied to claims 1 and 8 above, and further in view of Muthuswamy et al. (U.S. Patent No.: 2004/0204151, hereinafter, "Muthuswamy").**

Regarding claims 5 and 12, Kammer and Rune, in combination, disclosed all the limitations of claims 5 and 12, except speaker for producing sound. However, Muthuswamy teaches such features (see figure 4, speaker 308).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Muthuswamy into view of Kammer and Rune in order to provide the audio to the user.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A. Pham whose telephone number is (571) 272-8097. The examiner can normally be reached on Monday through Friday, 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on (571) 272-4177. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/TUAN A PHAM/

Primary Examiner, Art Unit 2618